

## Dengue Virus Type 1 Primers

### Catalog No. NR-12078

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### For research use only. Not for human use.

#### Contributor:

NIH Biodefense and Emerging Infections Research Resources Repository

#### Product Description:

There are four antigenically related but genetically distinct serotypes of dengue virus, types 1 through 4 (DENV-1 to DENV-4, respectively). NR-12078 contains forward and reverse primers that specifically amplify a region of the NS3 gene of DENV-1. A protocol is outlined in Appendix I.

#### Material Provided:

Each vial contains approximately 100 µL of a mixture of forward and reverse primers in TE buffer (pH 7.0). The concentration is shown on the Certificate of Analysis.

#### Packaging/Storage:

Primers were packaged aseptically in screw-capped plastic cryovials. The product is provided frozen on dry ice and should be stored at -60°C or colder upon arrival. Freeze-thaw cycles should be minimized.

#### Citation:

Acknowledgment for publications should read "The following reagent was obtained through the NIH Biodefense and Emerging Infections Research Resources Repository, NIAID, NIH: Dengue Virus Type 1 Primers, NR-12078."

#### Biosafety Level: 1

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. [Biosafety in Microbiological and Biomedical Laboratories](#), 5th ed. Washington, DC: U.S. Government Printing Office, 2007; see [www.cdc.gov/od/ohs/biosfty/bmb15/bmb15toc.htm](http://www.cdc.gov/od/ohs/biosfty/bmb15/bmb15toc.htm).

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**APPENDIX I**

**Dengue Virus Type 1 (DENV-1) Primers**

**Recommended Reagents/Equipment**

Reagent	Source	Catalog #
DENV-1 Primers	BEI Resources	NR -12078
Positive Control Template, Genomic RNA from DENV-1, Hawaii	BEI Resources	Genomic RNA from NR-82
Qiagen OneStep RT-PCR Kit	Qiagen	210212

**Reaction Mix<sup>1</sup>**

Reagent	Stock Concentration	Volume per Reaction (µL)
RNase-free water	---	23
Qiagen OneStep RT-PCR Buffer	5X	10
Q Solution	5X	10
dNTP Mix	10 mM each	2
Qiagen OneStep RT-PCR Enzyme Mix	---	2
Primers <sup>2</sup>	10 µM (each primer)	1
Template	50 to 5000 ng	2
		Total – 50 µL

<sup>1</sup>Reaction mix should be kept on bench-top cooler until ready for use.

<sup>2</sup>Primers are supplied at working stock concentrations.

**Cycling Protocol**

Cycle	# of Repeats	Step	Conditions
1	1	1	54°C for 30 minutes
1	1	1	95°C for 15 minutes
2	35	1	94°C for 30 seconds
		2	54°C for 30 seconds
		3	72°C for 2 minutes
3	1	1	72°C for 7 minutes
4	Indefinite	1	Hold at 4°C